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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,138	09/11/2003	Edward L. Sughrue		6892
7590 10/04/2006				
Richmond, Hitchcock, Fish & Dollar				
P.O. Box 2443				
Bartlesville, OK 74005				
		EXAMINER		
		JOHNSON, EDWARD M		
		ART UNIT		PAPER NUMBER
		1754		

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/660,138

Applicant(s)

SUGHRUE ET AL.

Examiner

Edward M. Johnson

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1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ou US 5,167,797.

Regarding claim 1, Ou '797 discloses sulfur-free hydrocarbons including cracked gasoline (see abstract, Figure, and column 7, lines 30-61), and the known removal of sulfur compounds including thiols (column 1, lines 39-40 and 59-63) and thiophenes (column 2, lines 17-22). Sulfur-free gasoline would inherently include between zero and less than about 1 ppmw sulfur compounds such as thiol or tetrahydrothiophene.

When the examiner has reason to believe that the functional language asserted to be critical for establishing novelty in claimed subject matter may in fact be an inherent characteristic of the prior art, the burden of proof is shifted to Applicant to prove that the subject matter shown in the prior art does not

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possess the characteristics relied upon. In re Fitzgerald et al. 205 USPQ 594.

Regarding claims 2-7, Ou '797 discloses sulfur-free hydrocarbons including cracked gasoline (see abstract, Figure, and column 7, lines 30-61), and the known removal of sulfur compounds including thiols (column 1, lines 39-40 and 59-63) and thiophenes (column 2, lines 17-22). Ou does not disclose a decrease in octane.

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Darcy US 5,858,212.

Regarding claim 1, Darcy '212 discloses cracked hydrocarbon products, including gasoline (column 1, lines 18-38), wherein the product is virtually sulfur free (column 4, lines 54-57) and sulfur-compounds are removed (column 2, lines 47-64), which would inherently include between zero and less than about 1 ppmw thiols and thiophene compounds.

Regarding claims 2-7, Darcy '212 discloses a gasoline product that is virtually sulfur free (column 4, lines 54-57) and wherein sulfur-compounds are removed (column 2, lines 47-64), and wherein octane rating is increased (see column 2, lines 32-36).

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4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Helfrey et al. US Re. 27,857.

Regarding claim 1, Helfrey '857 discloses a cracked gasoline product (column 1) wherein the product is substantially free of sulfur compounds (column 5, lines 65-58, and claims), which would inherently include between zero and less than about 1 ppmw thiols and thiophene compounds.

Regarding claims 2-7, Helfrey '857 discloses the product is substantially free of sulfur compounds (column 5, lines 65-58, and claims) and both high and low octane gasoline (column 9, lines 1-11).

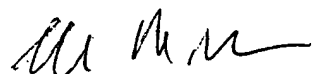
#### **Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zarchy US 4,831,208 discloses a gasoline product wherein sulfur compounds have been removed and the product is substantially free of sulfur (see column 2, lines 47-57 and column 4, lines 62-68).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ